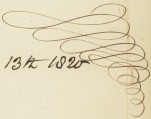
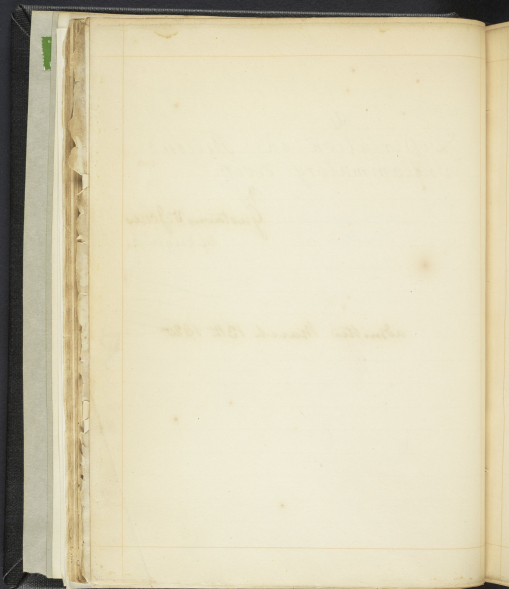


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Dissertation on Bilious
Inflammatory Fever.

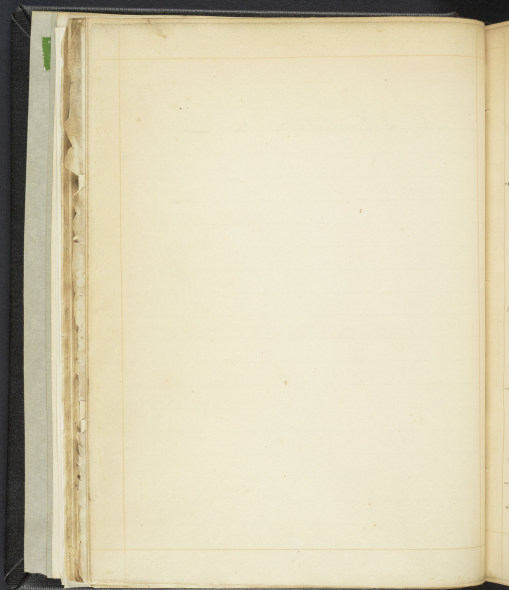
By
No 276 Market St. - Gustavus V. Jones
Mrs Mason of Virginia
Nov. 15th.

admitted March 13th 1820





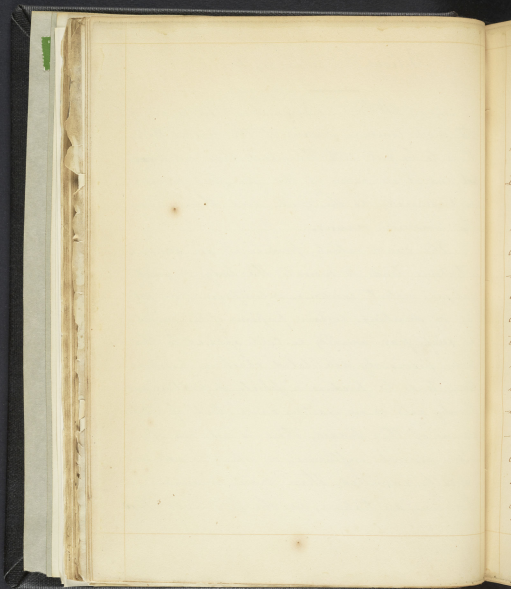
A Dissertation & —



Bilious Inflammatory Fever.

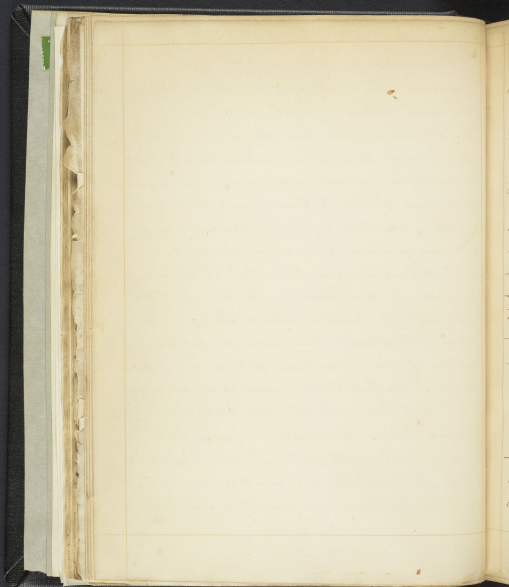
Bilious inflammatory fever is one of the most common diseases of the United States. It is to be met with throughout their whole extent, and at all seasons of the year, but prevails most generally to the south, and there during the warmer seasons.

The causes which produce it are various, whatever tends to enervate the body, as great fatigue, violent exertions, intemperance in eating, or drinking; certain passions of the mind, as grief, fear, anxiety &c. Cold applied to the body previously debilitated, checking perspiration, tends to produce a febrile disposition and thereby acts as an exciting cause. But of all the causes of this disease, there is not one of more general influence, or which is more universally admitted, than marsh miasmata; Lancisi, an Italian, was the first who reported



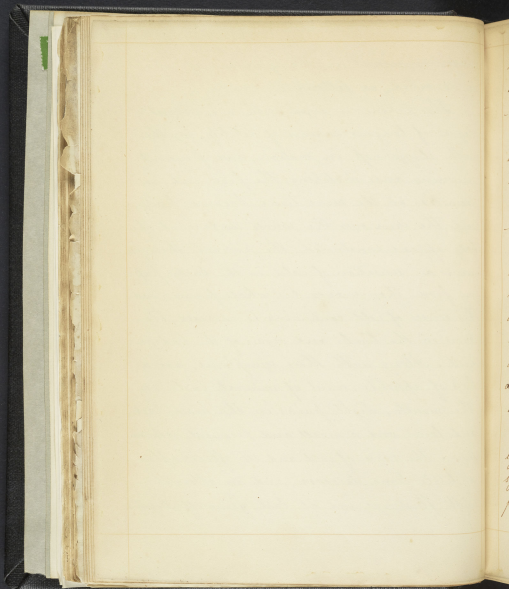
it to this cause, and succeeding ages have confirmed the justness of his observations.

The exact nature of these exhalations is not properly understood, but they are generally admitted to arise from putrid vegetable matter, acted on by heat and moisture. They are sometimes carried to the distance of several miles in a state, capable of producing disease, and are observed to be more powerful, concentrated, and virulent in hot climates, and in warm seasons, than in the more temperate climates. It further appears, that the nature of the diseases themselves are governed by the degree of virulence of these miasmata, so much so, that Cullen gave it as his opinion, that Intermittent, Remittent, and Continued fevers were produced by the same causes, acting with different degrees of force. These, then, are the principal causes, which, applied to the body, produce the disease



under consideration, the symptoms of which are described as follows

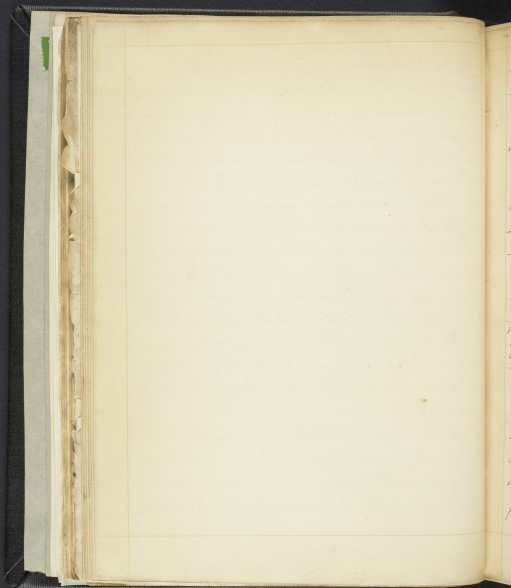
The patient is seized with a considerable degree of languor or sense of debility, together with sluggishness in motion, and frequent yawning and stretching; the face and extremities at the same time become pale, and the skin over the whole surface of the body appears constricted; the patient then perceives a sensation of cold in the back, passing from thence over his whole frame; and this sense of cold continuing to increase, tremors in the limbs and rigors of the body succeed. Along with these symptoms, are a loss of appetite, want of natural taste in the mouth, slight pains in the head, back and loins, and a small and frequent respiration. The sense of cold and its effects after a little time decrease, and are alternated with flushings, and at last, going off altogether,



they are succeeded by great heat diffused generally over the whole body; the face now is flushed: the skin is dry, as likewise the tongue; there is great restlessness, with a violent pain in the head, oppression at the chest, sickness at the stomach, and an inclination to vomit.

There are likewise great thirst and constipation, and the pulse is full and frequent, beating perhaps 90, 100, or 120 strokes in a minute. When the symptoms of the disease run very high, and there is a considerable determination of blood to the head, delirium will arise. In this fever, as well as most others of the continued kind, there is generally an increase of the symptoms towards evening.

If the disease is likely to prove fatal, either by its long continuance, or by the severity of its symptoms, there are a starting of the tendons, picking at the bed-clothes, involuntary dis-



charges by urine and stool, coldness of the extremities, and hiccups will be observed: where no such appearances take place, the disease will go through its course, and at length cease.

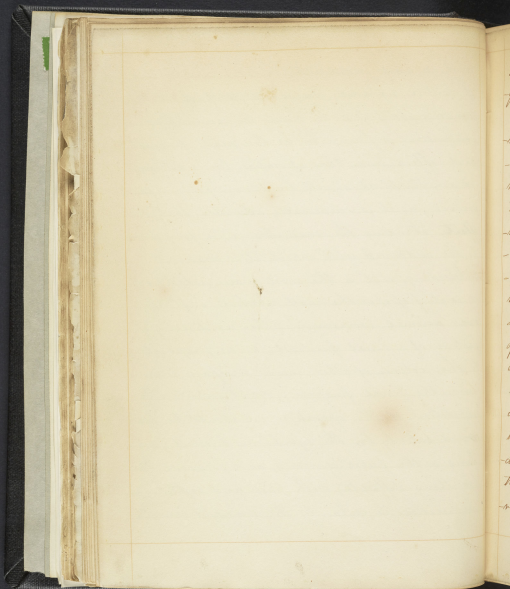
The symptoms pointing out the approach of a crisis, are, the pulse becoming soft, moderate, and near its natural speed; the tongue losing its fur and becoming clean, with an abatement of thirst; the skin being covered with a gentle moisture, and feeling soft to the touch; the secretory organs performing their several offices, and the urine depositing fleshy crystals of a dirty red colour, and becoming turbid on being allowed to stand any time.

These are the symptoms usually attending this disease, and from a review of them, we should be led to pronounce it a disease of high action; and this is unquestionably the form which it usually assumes in our climate. The plan of treatment indicated is obvious. We



must subdue inordinate action and bring it to the natural standard; and of all the remedies we possess to meet this indication venesection is found to be the most prompt, and efficacious. This operation being determined on, the blood should be drawn from a large orifice, as it is universally admitted that the effect, attending the evacuation, is in proportion to the suddenness with which it is made.

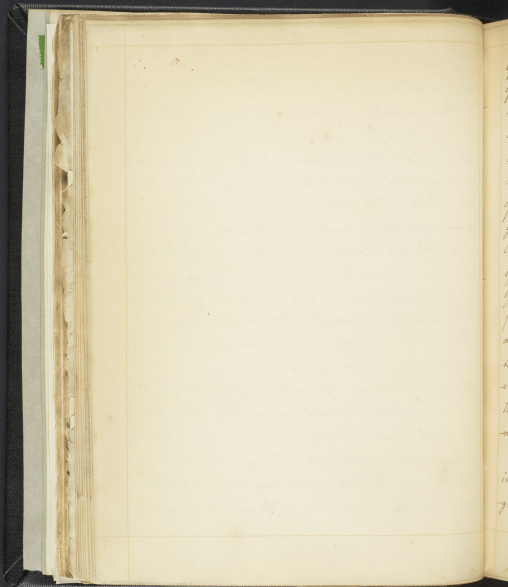
Bleeding, as it is the most manageable power, so it possesses the most absolute influence over animal movements, either as directly effective of a final purpose, or as preparatory to the action of other means necessary to ensure the final purpose. As it respects the repetition of the operation, we should be governed entirely by the symptoms present; as long as the pulse is strong and frequent, the breathing difficult, with pain and restlessness, venesection is certainly the remedy to be used.



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Dissections, too often, show the fatal consequences of neglecting it.

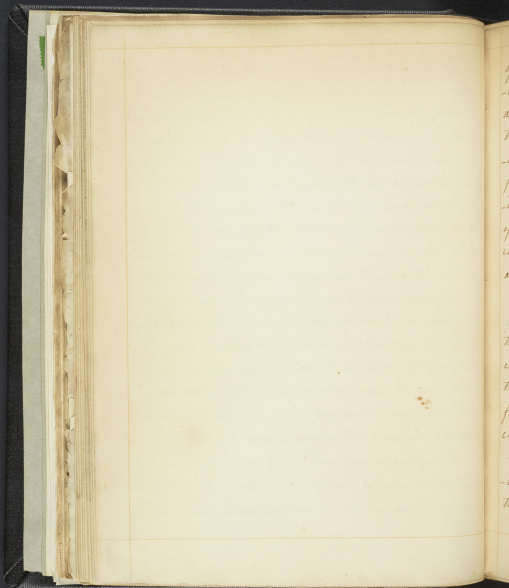
Having subdued the most urgent inflammatory symptoms, usually present in the commencement of this disease, by the means above recommended, our attention is next turned to the state of the alimentary canal. The intimate sympathy subsisting between it—particularly the stomach—and the rest of the system, is such as to render it an object of primary importance in the treatment of disease. The stomach is generally oppressed with a foul, offensive matter, for the evacuation of which emetics become necessary.

By the operation of emetics not only are the contents of the stomach evacuated, but the headache, and nausea, such frequent attendants on this disease, are relieved; the heat of the skin is lessened, and ~~and~~ a mild diaphoresis extends, over the surface; even a solution



of the disease is sometimes obtained. But it is oftener necessary to have frequent recourse to this remedy, in order, to bring about so desirable an end; and it is occasionally necessary to repeat the emetic several times in the day. The emetic, most highly recommended by Dr. Chapman, is a combination of *Specac.* and tartarized Antimony; the former gives promptness of operation to the emetic, and the latter by making a permanent impression on the system, breaks the concatenation of morbid associations by which the disease is kept up. The difficult respiration and cough, which are such frequent and distressing attendants on this complaint, are often so promptly relieved by the remedy, under consideration as to have given rise to the opinion, that they are produced by a sympathetical connexion between the stomach and lungs.

Vomiting is unquestionably one of the most important means made use of to arrest the progress of bilious fever; as it evacuates the contents

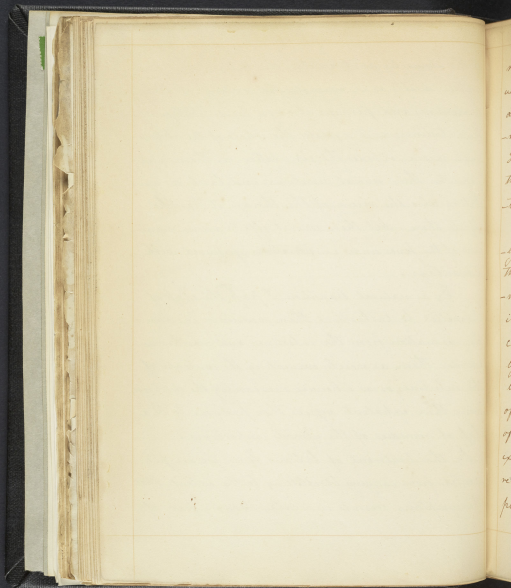


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of the stomach; as it emulges the biliary and pancreatic ducts; as it evacuates the contents of the duodenum, and perhaps, also of a larger portion of the intestines; as it agitates the whole of the abdominal viscera, expedites the circulation in them and promotes their several secretions; and lastly as agitating also the viscera of the Thorax, it has like effects there. All these several effects are, in many cases of the fever under consideration, procured with advantage.

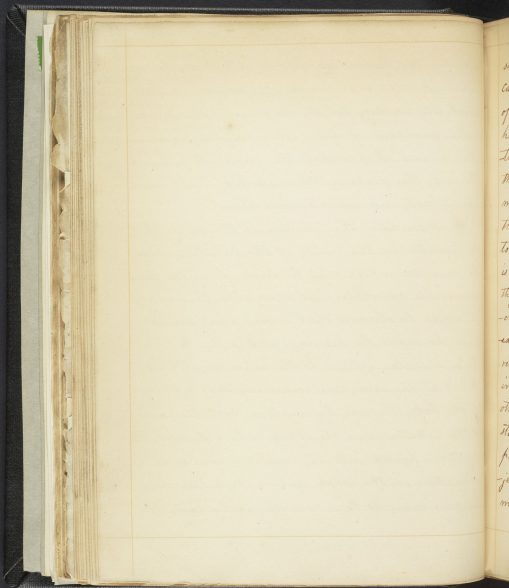
By a natural transition I pass ^{from} the class of emetics to cathartics. These medicines increase the evacuation from the intestines, and whether we consider them as merely evacuating the contents of the intestines, or as likewise increasing the discharge from their exhalant vessels, they promise to be a class of remedies of the utmost importance.

In the treatment of bilious fever, we are prevented from carrying bloodletting to the extent that the symptoms seem to indicate, through fear of

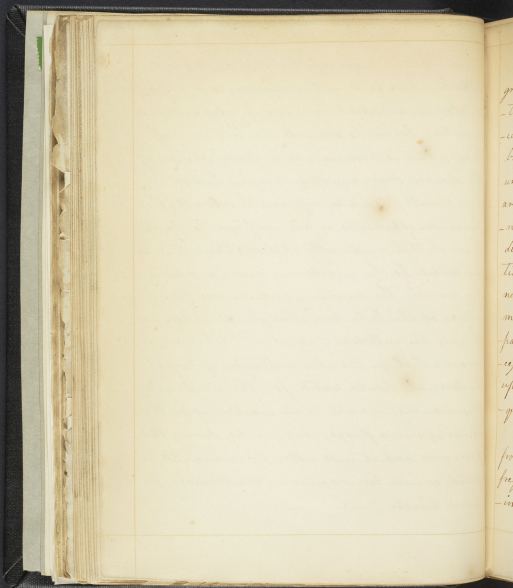


reducing the system too low to withstand the evacuations from the alimentary canal, which are absolutely necessary for the discharge of the inordinate quantities of bile secreted during the disease. This is the class of remedies then precisely suited to the case; they discharge the contents of the alimentary canal, and reduce arterial action.

If we consider the quantity of fluids constant -ly present in the cavity of the intestines, and the quantity which may be drawn from the innumerable excretories that open into this cavity, it will be obvious that a very great evacuation can be made by purging; and if this be done by a stimulus applied to the intestines, without being at the same time communicated to the rest of the body, it may, by emptying both the cavity of the intestines, and the arteries which furnish the excretions poured into it, induce a considerable relaxation in the whole system; and therefore purging seems to be a remedy particularly well

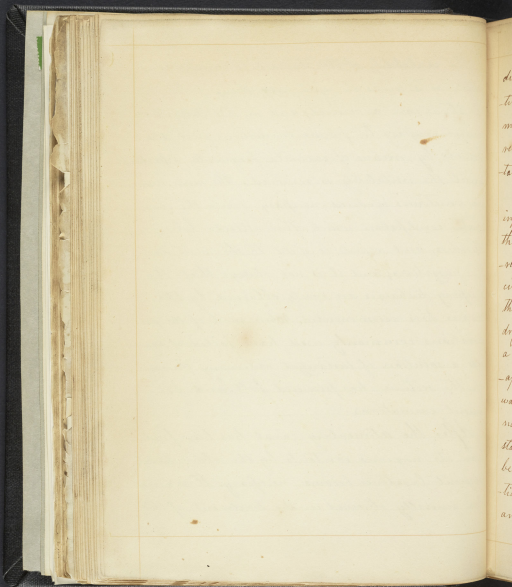


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suited to this stage of the disease. The best
Cathartic here to be used is mercury; 10 or 15 grains
of Calomel, succeeded by a dose of Jalap or Rhubarb,
have been found to evacuate the bile more effec-
tually, and to produce a more speedy solution of
the disease than any other purge. Indeed it
might well be said in reference to Calomel, that
the action of Cathartics is not confined to the parts
to which they are directly applied: Their stimulus
is extended to the neighbouring organs, and hence
they promote the secretions, and increase the dis-
charge of the bile and other fluids usually pour-
ed into the intestinal canal. Dr. Chapman
remarks, that in the administration of purges
in fever, we should watch for the remission, as
otherwise, they are apt to lie inactive upon the
stomach; give a purge, continues he, during the
paroxysm and it will either be immediately re-
jected, or will lie inactive in the stomach for
many hours.



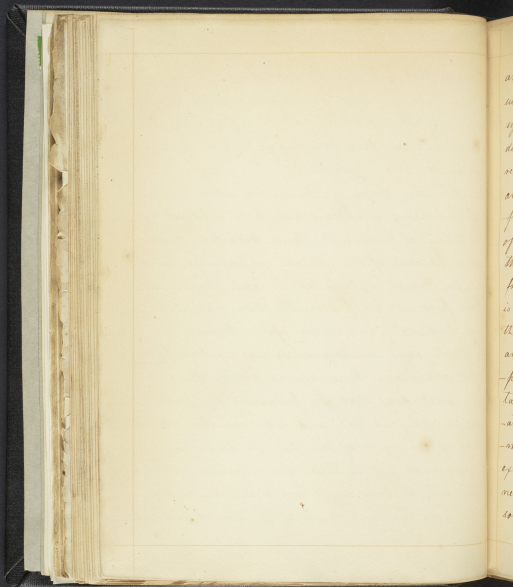
The irritability of the stomach is sometimes so great as to make it reject every thing taken into it as soon as received; and in this case it becomes necessary to procure evacuations from the bowels by means of enemata frequently repeated until the irritability is removed. The same means are sometimes rendered necessary from the obstinate constipation which often attends bilious disorders, and refuses to yield to the most drastic purgatives; and it is not always that the necessary discharges are easily obtained by the means here recommended. When most of the preparations commonly used have failed of success, a solution of tartarized antimony, thrown up the rectum, has procured full and frequent evacuations.

After the alimentary canal has been freed from its noxious contents by the above means frequent laxatives become necessary. It is a maxim generally observed in the treatment of this

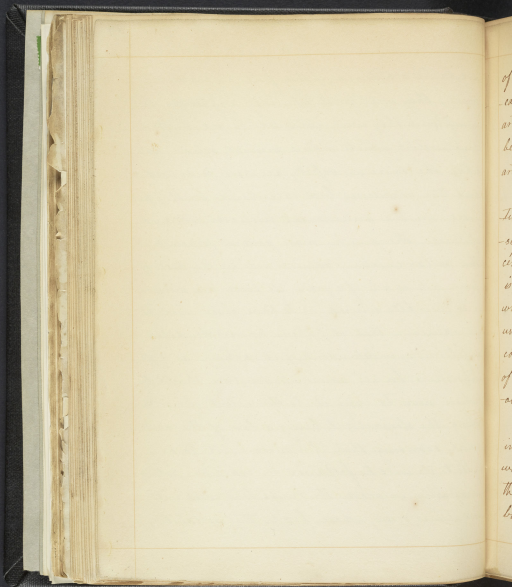


disease, that as long as the febrile symptoms continue there is a disposition to accumulations of matter in the intestines, which, if permitted to remain, never fail to act as a cause of irritation to the system.

At this stage of the disease, when the more inflammatory symptoms have been subdued by the plan of treatment above detailed, diaphoretics become of the utmost importance. Several circumstances contributed to lead physicians to their free use in fevers. The skin is generally dry and hot; and it was often observed that a spontaneous salutary crisis was marked by diaphoresis or even by a copious sweat. Hence it was concluded that by following the pathos nature pointed out, and inducing this relaxed state of the vessels of the skin, the disease might be removed. But in their administration great caution is to be observed. As long as the skin is dry and hot, those which are of the stimulating kind



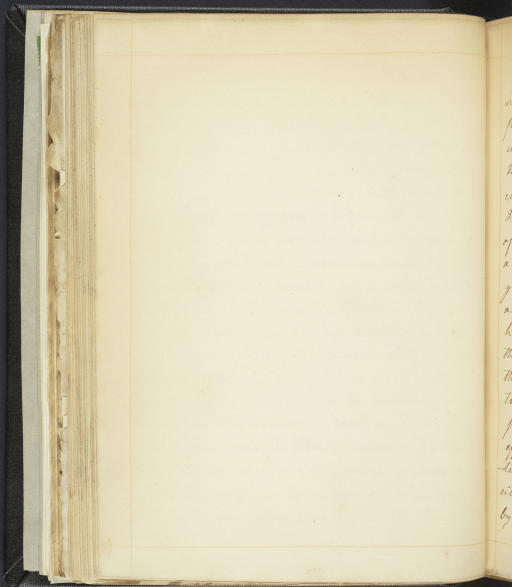
are to be avoided; as, if they fail in producing sweat, they will most assuredly aggravate the symptoms they were intended to relieve. Those diaphoretics which reduce arterial action, and relax the extreme vessels, are here to be used; and the medicines best calculated for this purpose are the antimonial preparations; and of these, the one in most general practice is the Tartar emetic, administered in the dose of from $\frac{1}{4}$ to a $\frac{1}{2}$ of a grain, its power over disease is so promptly evinced, as to have given rise to the opinion that it possesses powers decidedly antifebrile, independent of its action as a diaphoretic. In its administration care should be taken never to carry it to the extent of nauseating the stomach; it being a law of the animal economy that if nausea exist to any extent it will be followed by reaction, which necessarily increases the fever. But cases will sometimes occur where, from the irritability



of the stomach, the antimonials cannot be retained. Here, we must resort to some of their kindred articles; and of these the saline mixture is the best. This not only has great power in subduing arterial action, but quiets irritation.

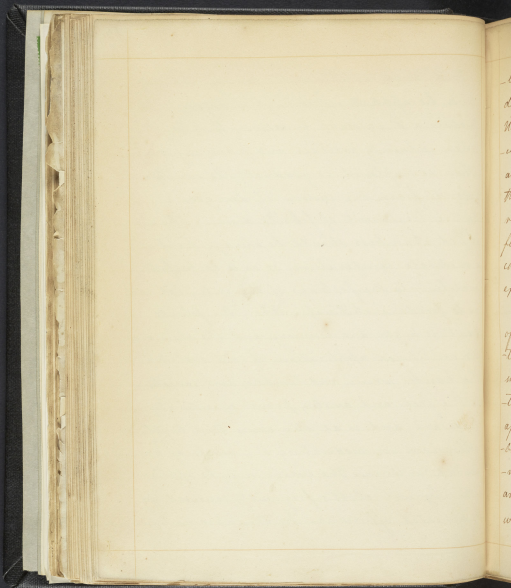
A sympathetic connexion appears to exist between the stomach and surface of the body; in consequence of which the state of the one is to a certain extent communicated to the other. This is exemplified in some cases of irritating stomach, which, after refusing to yield to the remedies usually employed, as long as the skin remains constricted, is at once relieved by the appearance of a diaphoresis on the surface; whether spontaneous or procured by art.

Another remedy of considerable importance in the treatment of this disease is cold, whether we employ it in the form of cold air let into the room, or of cold water applied to the body. But this is to be used under certain restrictions.



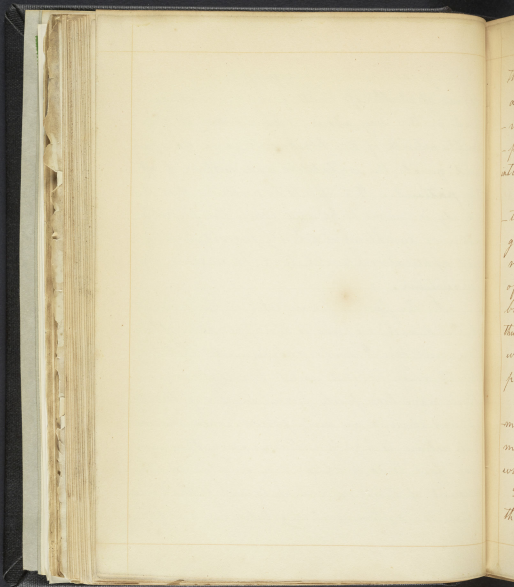
Cold, as an antiphlogistic remedy, should never be applied in so high a degree, as to produce a disagreeable sensation. If it be, it will certainly irritate and prove injurious. When so employed as gradually to evacuate caloric from the system, it does good.

In the treatment of febrile diseases, the air of ^{the} bed chambers should be always kept at a moderate temperature, so as to be perfectly grateful to the feelings of the sick, not so as to produce chilliness. When the febrile heat is high, and burning, and the skin dry, the continued application of cold water to the hands, wrists, and temples, and sometimes to the feet, and ankles, proves exceedingly pleasant, and is at the same time highly efficacious in moderating the excess of arterial action. The water may be applied either by wet cloths frequently renewed, or by repeated affusions. In this case particu-



early great caution is requisite, but some degree of chilliness must follow the operation. Used in the way above recommended, it reduces the activity of the bloodvessels, causes diaphoresis, and quiets the irritability and restlessness of the patient. But it is to be recollected that this remedy is never to be used, when the pulse is feeble or symptoms of debility prevail, as the cold applications will tend to increase the exhaustion.

In the farther prosecution of the treatment of this disease we come to the application of blisters; and here I would only remark that they should never be used until previous evacuations have been freely premised, for if they be applied during an early period when the morbid action is highly inflammatory, they cannot fail to do mischief; they simply add the amount of their own stimulation to that under which the system is already labouring; and by

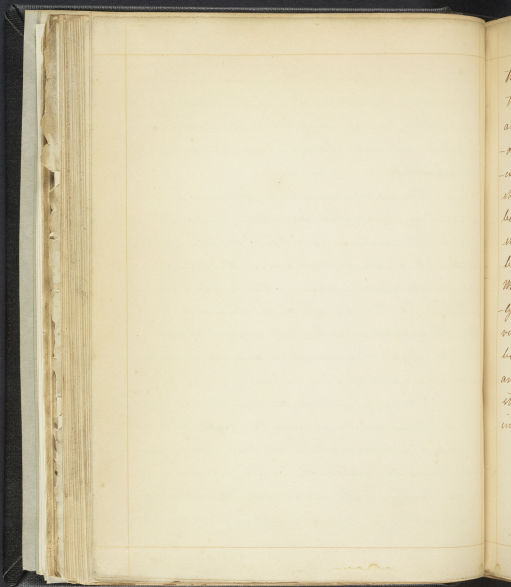


that means, augment the force of febrile action. In cases of inflammatory fever the lancet should have nearly completed its duty, before blisters are called into requisition.

The cases in which blisters are particularly indicated, are, when after the general system has been pretty well reduced, there remain morbid affections of particular parts: by the application of blisters to these, relief is obtained and thus they eradicate the last remains of disease, which might otherwise prove a source of much pain and distress.

Having gone through the general treatment of the disease it may be thought here to make a few observations on the proper course which should be observed by the patient.

During the early stage of the disease, when the symptoms are inflammatory it is obvious



That every thing which tends to stimulate the system should be carefully avoided, and all such means made use of as tend to reduce action and calm irritation. As con-
-ducing to this end the antiphlogistic regimen should be strictly observed; the patient should be kept cool, and perfectly at rest, the room should be kept quiet and no person should be admitted except the necessary attendants, When the disease has been subdued, and there is only debility remaining. the patient should return very gradually to his former habits; his diet should be simple, light and of a digestible nature, and his exercise should be in proportion to his strength, gradually increasing it as his strength improves until it be perfectly restored.

